



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,534	03/29/2005	Kelvin Robert Legge	28206/41081	4559

4743 7590 11/28/2006

MARSHALL, GERSTEIN & BORUN LLP
233 S. WACKER DRIVE, SUITE 6300
SEARS TOWER
CHICAGO, IL 60606

EXAMINER

KRECK, JOHN J

ART UNIT PAPER NUMBER

3673

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/529,534	LEGGE ET AL.	
	Examiner	Art Unit	
	John Kreck	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 and 29-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-23, 27, 28, 44-54 and 57-60 is/are rejected.
- 7) ☒ Claim(s) 25, 26, 55 and 56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 15-28 and 44-60 in the reply filed on 9/14/06 is acknowledged. The traversal is on the ground(s) that the linking technical feature is not found in the prior art. This is not found persuasive because the linking feature is plainly shown in the prior art (see the rejections below).

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

2. Claim 18 is objected to because of the following informalities: it is apparent that claim 18 should depend from claim 16, since it requires synthetic, while claim 17 specifies non-synthetic. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 15-18, 20, 21, 24, 28, 44-46, 48-51, 53, 54, and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Robertson, et al. (U.S. Patent number 4,916,937).

Robertson (e.g. figure 6) teaches the method including providing a first layer (44); second layer (42) and providing negative pressure (col. 9 line 64- col. 10, line 45) as called for in claim 15.

Re claim 16: see ref# 46.

Re claim 17: col. 6, line 46 "sand".

Re claim 18: col. 6, line 46.

Re claim 20: col. 6, line 39 "asphalt" and/or line 38 "rubber".

Re claim 21: col. 6, line 35-39.

Re claim 24: col. 10, line 24.

Re claim 28: col. 10, lines 19-20.

With regards to independent claim 44:

Robertson teaches the method including providing a first layer (44), second layer (42), spacer means (46), and displacing fluid as called for in claim 44.

Re claim 45: col. 4, lines 36-40.

Re claim 46: col. 4, lines 36-40.

Re claim 48: see fig 6.

Re claim 49: col. 8, lines 45-46.

Re claim 50: col. 6, line 46 "sand".

Re claim 51: col. 6, line 46.

Re claim 53: see col. 9, line 68.

Re claim 54: col. 10, line 24.

Re claim 58: col. 10, lines 19-20.

4. Claims 15 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by WO99/01619.

WO'619 teaches the method including providing a first barrier layer (2); providing the second layer (7); and providing a negative pressure (page 7, last line) as called for in claim 15.

Wo'619 plainly teaches the controlling temperature as called for in claim 27.

5. Claims 44, 57, and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Cunningham (U.S. Patent number 4,462,184).

Cunningham teaches the providing a first synthetic layer (333); second synthetic layer (col. 15, lines 34-36); providing spacer means (335, 337); and displacing a fluid (col. 15, lines 35-40) as called for in claim 44.

Cunningham also teaches the modifying temperature as called for in claim 57: see col. 16, lines 20-25.

Regarding independent claim 59: Cunningham discloses the process including the step of displacing a fluid to entrain contaminants. See col. 15, lines 34-44.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 19 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson, et al. in view of Bohnhoff (U.S. Patent number 5,848,856).

Robertson lacks the cusped membrane of plastic material for the spacer.

Bohnhoff teaches a cusped membrane of plastic material for use as a spacer, with advantages over gravel, and conventional spacers in that it doesn't clog easily.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Robertson process to have included a cusped membrane of plastic material as called for in claims 19 and 52.

7. Claims 22, 23, 47, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson, et al. in view of McGroarty, et al. (U.S. Patent number 5,091,234).

Robertson lacks the composite membrane, but discloses (col. 6, lines 34-40) "As in the case of the prior art liners, membranes 42, 44 may be formed of any suitable material..."

McGroarty discloses a geocomposite barrier layer, which is disclosed as having a waterproof sheet combined with a waterproof layer of clay. One of ordinary skill in the art would have recognized the advantage of having dual layers of waterproofing. It

Art Unit: 3673

would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Robertson process to have included a geocomposite barrier layer as called for in claims 22.

Re claims 23 and 47: McGroarty teaches clay.

With regards to independent claim 60:

McGroarty teaches a method of hydrating a clay liner of a geotechnical barrier (col. 1, lines 27-35 and 64-65) McGroarty teaches that the clay liner is hydrated when water permeates the clay layer, but lacks the positive step of displacing through a fluid passageway.

Robertson teaches a barrier comprising a fluid passageway between two liners, and further teaches the displacing a fluid (col. 10, lines 1-20). Robertson teaches that any suitable low permeability material is to be used for the liner.

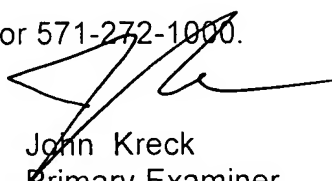
It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the liner of McGroarty as one or both of the liners used in the Robertson process, since the McGroarty liner has the advantages of dual waterproof layers. Using the composite liner in the Robertson process would have inherently resulted in the hydration of the clay as called for in claim 60.

8. Claims 25, 26, 55, and 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is 571-272-7042. The examiner can normally be reached on Mon-Thurs 530am-2pm; Fri: telework.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John Kreck
Primary Examiner
Art Unit 3673

21 November 2006